The in-home cockpit
Part 3: Switch Panel

by Andrew Underwood

In last month's *Aviation News* I recounted the setup procedure for the first two hardware elements of my home simulator cockpit when I attached the Pro Flight yoke and throttle quadrants to my computer desk.

This month I was due to add the Pro Flight rudder pedals to my collection. However, due to a delay in the product shipment from the USA I was given the Pro Flight switch panel as a replacement unit to meet this edition's publishing deadline.

The Pro Flight switch panel in essence emulates the segment of a single-engine piston aircraft panel often hidden directly behind the yoke, containing all the switches that control electrical elements of the aircraft system.

The physical product contains 13 ON/OFF rocker switches: battery, alternator, avionics master, fuel pump, de-ice system, pitot heat, cowl flaps (OPEN/CLOSE) and the panel, beacon, navigation, strobe, landing and taxi light controls. A five-way rotary selector on the left-hand side of the unit controls magneto selection (OFF/RIGHT MAG/LEFT MAG/BOTH/START) and on the opposite right-hand side of the panel, a gear UP/DOWN selector sits alongside three LED indicators which glow green for locked, orange for in transit and red for unlocked when linked to the Microsoft Flight Simulator X software.

The front face of the panel measures 28cm by 8cm, matching the yoke base for width. The depth of the panel is a mere 1.5cm, but it comes packaged with a neat 5cm deep black plastic bracket with six screw holes on both its top and bottom edges, as well as two holes per upright side edge to allow the unit to be mounted in unison with other similar shaped Saitek panels from the Pro Flight collection.

As this was my first panel out of the series Saitek produces, I elected to attach the switch panel backing directly onto the top side of the yoke base, as is intended. The unit has five hexagonal screw points for this purpose, unscrewed and rescrewed by use of an Allen key.

However, the Allen keys that come included in the yoke box and the one included with this switch panel were both too small for the task, and I needed to dig out my own 7/64in to combine the two units.

Power and data for the panel are transmitted through a single USB cable, which can be plugged either directly into the computer running the FSX software or into one of three USB ports in the rear right-hand side of the yoke base, which is in turn connected via its own USB 2.0 lead to the computer. The 5cm deep backing gives ample room to cable tie and hide the remaining coil of wire should you choose this option, helping keep the surrounding desk area clear and tidy.

A single CD ROM containing a 43Mb driver installation file also comes included in the box, along with a set of adhesive Velcro strips for those who wish to sit the panel unit directly on to a flat desktop service. The installation takes less than a minute to complete, and once finished gives the user the opportunity to test each function of the unit through a simple interface featuring a photograph of the panel. This changes each switch position and light colour on the screen in real time to match the user's inputs.

These actions are automatically pre-assigned by Saitek through the SimConnect software developer kit within FSX to replicate their simulator commands, so the user requires no further calibrating to get the panel to function as expected once plugged in.

It should also be noted that users cannot customise the intended functions of each button inside FSX, as was able to be done with the Pro Flight yoke and throttle quadrant axes and buttons.

Once up and running in virtual flight, I found satisfaction from the motion of raising the gear lever rather than just striking a keyboard key, and the solid click presented from each switch touch added an element of realism to the simulation experience, something I never would have imagined it was missing before using the panel.

The large size of each switch and clear white text labelling on the black background make for unmistakable control selections, and the three bright landing gear light indicators add an impressive finishing touch to the quality feel of the panel when illuminated.

In my opinion the main advantage of using the switch panel is that it opens up the available on-screen real estate from the virtual cockpit view within FSX.

Before this, I would have needed to use the yoke's point-of-view hat switch to pan the camera angle forward and down (as well as usually clicking a hotspot on the on screen yoke to make it disappear so that I could actually see and operate the hidden panel switches with my mouse cursor). Now I can just look straight ahead, with my six-pack of instruments along the bottom of my monitor and the outside view of from the windshield maximised, allowing for detailed, more immersive simulated VFR flying.

The only gripes I have with the product would concern the functionality of the magneto switches, with the automated command allocation in the simulator controlling multiple ignition systems rather than individual engine spark plug groups when flying an aircraft with two or more engines.

In the real world, it is common practice to start one engine at a time, yet if attempting to do so while using the Pro Flight switch panel, the user needs to use the old-style mouse cursor selection to rotate the on-screen starter switches instead.

I also found myself with a double up of controller commands, having assigned the B1/B2 rocker style switch on my Pro Flight yoke handle to control the landing gear up and down function. This isn't something I'm complaining about — but now with a circular ergonomic handle on the switch panel designated for this task, I am able to assign my B1/B2 switches to a myriad of other in-simulator commands, which could be anything from raising and lowering the tail hook on military aircraft carrier jets to opening and closing the rear cargo door on the likes of my virtual C208 Caravan!

Watch this space for next month's addition to the build.

Top: Configuration screen.
Below: Gear down and satisfactorily locked.

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on the Japanese mainland. Descriptions are brief — the Battle of Britain occupies 18 paragraphs spread over three pages of text — but are well supported with hundreds of black-and-white photographs, both aerial reconnaissance and general images, plus colour maps of the battles and campaigns.

The overall effect is one of authoritative but easily absorbed material. The Axis equivalent of the British and American effort is well covered, in both words and photographs, and the reader is left with an overview of WWII activities and a good understanding of this particular aspect of it, one not usually covered in any depth.

The book is marred slightly by lapses in aeronautical nomenclature that should have been picked up in the proofreading (the Short Stirling was named for the Scottish city and had nothing to do with silver, for example, while a Dakota caption is just plain confused). And perhaps printing the captions in grey 7pt was meant to make the reader have to concentrate, especially under artificial light.

Minor quibbles. Production quality is excellent with plenty of white space, and *World War Two From Above* is an attractive book on a fascinating subject. Its publication is much appreciated.